

REMARKS

Claims 1, 3-5, 7, 9-13, 15, 17, 19-22, 25 and 29-33 are now pending in the application. Claims 1, 3-7, 9-13, 15, 17-25, 27-33 stand rejected. By the present amendment claims 6, 18, 23, 24, 27 and 28 have been cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

The undersigned wishes to express his appreciation to the Examiner for the courtesy of the telephone interview regarding the present application on June 14, 2007. The cited references were discussed, as were certain of the independent claims. No decision/agreement was reached as to the allowability of any claims.

CLAIM OBJECTIONS

Claim 13 was objected to for grammatical reasons. The undersigned has amended this claim in accordance with the Examiner's suggestion. Reconsideration is requested.

REJECTION UNDER 35 U.S.C. § 112

Claim 13 was rejected for being ambiguous, in view of the recitation of "metal sheets" in line 8. This has been amended per the Examiner's suggestion. Reconsideration is requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 13, 15, 17-25 and 27-33 stand rejected as being obvious over Graff (U.S. Pat. No. 3,074,832) in view of Day et al. (U.S. Pat. No. 5,665,450) and Padden (U.S. Pat. No. 5,500,272). This rejection is respectfully traversed.

Initially the Examiner will note that independent claim 13 has been amended to recite: "and where said plurality of fibers has an index of refraction that generally matches an index of refraction of a resin of said tape" Claim 1 has been amended along similar lines.

Independent claim 13 also has been amended to include the additional operation of "removing the skin panel from the tool and securing it to a portion of a fuselage of said airborne mobile platform."

It is respectfully submitted that this subject matter is not disclosed or suggested by the Graff/Day et al./Padden combination. Graff involves the construction of a window plate, but there is no teaching or suggestion that the window plate could include layers of pre-impregnated resin tape that has fibers and resin having generally matching indices of refraction. Also, there is no mention in Graff that the window plate described therein is suitable for use with an airborne mobile platform, or more specifically with a fuselage of an airborne mobile platform. With the present method, the generally matching indices of refraction provide a highly optically transparent window.

The Examiner will also note that with respect to the Graff patent, Graff makes clear that its process can only make "flat" plates (col. 3, lines 33-62). The process utilizes tension from the cure shrinkage of the plastic to apply tension to the framework. This process can only make flat panels. The system and method of the present

application may be used to construct window panels of any shape (i.e., not necessarily just flat) and does not rely on the cure shrinkage to make the part work structurally. The undersigned has added minor language to independent claims 1 and 13 to even better define this feature of the claimed method.

There is further no suggestion from Day et al. that the composite window structure described therein could be implemented in a method for forming a window having an integrally manufactured metal frame that forms a peripheral portion of the window. There simply is nothing in Day et al. that might suggest to one of ordinary skill in this art the desirability of this combination, so as to motivate one of ordinary skill to combine the teachings of these two references as the Examiner has done. Padden does not involve the manufacture of a window, but rather a graphite epoxy ply structural panel that is reinforced with at least one metal layer. In addition, the metal layer does not form strictly a peripheral portion of the window. There is nothing in Padden to suggest using the teachings therein to form an optically transparent window having a metal reinforcing peripheral frame portion.

With all due respect to the Examiner, these references appear to have been combined in hindsight using the Applicant's disclosure as a "roadmap". It is well established by the CAFC that there must be some teaching, motivation or desirability to combine the prior art references. A general relationship between the fields of the prior art references is not sufficient to establish the required "suggestion" or "motivation". Interactive Techs., Inc. v. Pittway Corp., Civ. App. No. 98-1464, slip op. at 13 (Fed. Cir. June 1, 1999) (unpublished), cert. denied, 528 U.S. 1046 (1999).

Furthermore, the Federal Circuit has stated:

The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some “teaching, suggestion or reason” to combine the cited references.

McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (citing Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ 2d 1378, 1383 (Fed. Cir. 1997)).

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). In In re Fritch, the CAFC stated:

It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosure disclosures in the prior art to deprecate the claimed invention. Id. at 23 USPQ2d 1784.

Accordingly, it is respectfully maintained that the combination of references applied by the Examiner has been made in hindsight using the pending claims as a road map.

Claims 13, 15, 17-25 and 27-33 were rejected as being obvious over Graff/Day et al./Padden and further in view of Skubic et al. (U.S. Pat. No. 5,039,566). This rejection is also respectfully traversed. Skubic et al., while being directed to a transparent composite window for an aircraft, does not suggest the desirability of manufacturing a composite window with the peripheral frame structure as recited in the claims. Again, there is simply nothing in Skubic et al. that would suggest to one of ordinary skill in this art the method of forming an optically transparent composite window structure that

includes a metal peripheral frame structure. Thus, Skubic et al. would not motivate one of ordinary skill to combine its teachings with the those of Graff, Day et al. and Padden to produce the subject matter of independent claim 13.

Claims 1, 3-7 and 9-12 were rejected as being obvious over Graff/Day et al./Padden and Skubic et al., as applied to claims 13, 15, 17-25 and 27-33 above, and further in view of Shorr (U.S. Pat. No. 3,081,205). Shorr is directed to a window assembly, however, there is no suggestion of the desirability of including its teachings in connection with the other limitations recited in independent claim 1 (e.g., matching indices of refraction of the fibers and resin; using a peripheral frame structure that is formed as an integral portion of a transparent window assembly). Again, the isolated teachings of Shorr appear to have been combined in hindsight with those of the other cited references to construct the obviousness rejection. Accordingly, reconsideration is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: August 17, 2007

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